

CALL FOR SCIENCE EDUCATORS – SUMMER 2014



UPWARD BOUND: SUMMER ACADEMY FOR CREATIVE (STEM) STUDIES



Upward Bound (UB), a federally-funded TRiO program, brings 100 low-income, first generation, and underrepresented students (grades 10-12) to the Summer Academy for Creative Studies at University Park from June 16th - July 26th. This program is designed to provide young students with an array of positive short-term experiences in academics, college readiness, and career preparation. The students who qualify and attend this program are seeking introductory content to college science courses (e.g., in a 1 week session), including hands-on experiences in science, math, engineering, and career readiness. The program provides academic enrichment through summer classes and applied learning activities through instruction, only. **PLEASE NOTE: The Summer Academy for Creative (STEM) Studies is a program offering of Upward Bound in the Educational Equity Office. It is not a research-based program nor is it affiliated with the SEECoS Program in the Eberly College of Science.**

Seeking Summer Science (STEM) Teachers:

We are currently seeking to hire instructors for the Summer Academy for Creative Studies. Qualifications include: dedicating a portion of time this summer to engage and intrigue small classes (n=10-20) in creative content, advocacy for careers in STEM, and passion to share science with the next generation. Prior experience working with youth may be useful, but is not required. Teachers are asked to develop introductory level concepts in the field of their choice, and are encouraged to use inquiry-based teaching methods, field trips, hands-on activities, and other creative means to support their lessons (example syllabi attached). A pay rate equivalent to \$25/hr will be awarded for each hour of instruction. Up to 8 additional hours of prep time and 2 hours of mandatory staff training will be compensated at the same rate.

Who should teach?

Faculty or graduate students who are passionate about their subject area, and who have an interest in teaching and inspiring low-income, first generation (rising) college students in creative and innovative ways. Courses can be co-taught. The course should not be designed for depth of content, but rather to promote confidence and persistence/diligence in the sciences. It is helpful if courses are written to connect content with career opportunities.

How do I apply?

Email Upward Bound Director, **Mickey Bellet** (mlb43@psu.edu), by January 31, 2014 if you or someone you know would like to develop a mini course for UB's Summer Academy for Creative Studies. The courses may follow any of the timelines below, although some flexibility could be necessary:

Examples:

- 1 Week, 8 am-9:45, MTWR
- 2 Weeks, 8 am-9:45, MTWR
- 3 Weeks, 8 am-9:45, MTWR
- 4 Weeks, 8 am-9:45, MTWR
- 5 Weeks, 8 am-9:45, MTWR

Successful courses from 2013: Geology: Don't Take Schist for Granite; The Unknown World: Bacteria and Genes; The Physics of Paper Airplanes; The Weirdest Plants in the World!; Biotechnology; FUNdamentals of Biochemistry: The Chemistry of Life; Friend or Foe: Microbes Are Everywhere!; Questions of Life ; Fields, Food, and Fuels: Plants as Renewable Sources of Nutrition and Bioenergy; Can Sunlight Fuel the Future?; From Earthquakes to Starquakes: Topics in Earth and Space Science; Aliens of the Deep; Higher, Faster, Stronger!; The Anatomy and Physiology of Muscles; The Worlds beneath Our Eyes

2014 Upward Bound Summer Academy for Creative Studies
Course Proposal Guidelines – Due January 31
Email proposal to Mickey Bellet (mlb43@psu.edu)

The Upward Bound and Upward Bound Migrant programs are currently seeking faculty and graduate students in Science, Technology, Engineering, and Math (STEM) disciplines to develop and instruct introductory level courses in the field of their choice during the summer of 2014 at University Park, PA.

What to include in your proposal:

- Title
- Instructor(s)
- Objective(s)
- Content Area/Discipline
- Brief description
- Outline/schedule or rough syllabus
- Materials (some limited funds are available for the purchase of materials and cover costs of printing handouts, etc.)
- Facilities needed

Appropriate Activities:

- Classroom hands-on activities, lab hands-on activities, team-building activities, demonstrations, instruction, discussion, debate, etc.

Characteristics of target audience:

- High school students, grades 10-12 (age range 14-17)
- Low-income, first-generation to college students
- Second language learners (Spanish/English)
- Attending Persistently Lowest Achieving (PLA) school districts in Pennsylvania
- Able to formulate own beliefs, take responsibility for action, make their own decision about friends, activities, career and lifestyle, competent in abstract thought
- Deeply curious and creative, seeking inspiration.

For more information, contact Mickey Bellet (mlb43@psu.edu), Director, Upward Bound and Upward Bound Migrant programs, or Michael Zeman (mjz120@psu.edu), Director, Science-U Summer Camps, or visit: www.equity.psu.edu/ub